A Study Of Self-Directed Learning Of Students In Health Programs In India

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ABSTRACT

Self-Directed Learning (SDL) is an active learning approach in which the students are responsible for their own learning outcome, with teacher acting as a facilitator of learning. A medical graduate, being a lifelong learner, should inculcate the habit of Self-Directed Learning (SDL). In the present study, the SDL abilities of first year Bachelor of Medicine, Bachelor of Surgery students were assessed using a questionnaire. Based on their experience, students were also asked about the prerequisites of Self-Directed Learning (SDL), how it can be promoted, and their expectations from the teachers. Students scored high in most of the Self-Directed Learning (SDL) skills. However, they felt they need improvement in time management. Furthermore, the students are required to develop their interpersonal communication skills, and they also find it difficult to express messages effectively in oral presentations. Most of the students felt they need help in finding the correct learning resources. According to them, the students should be focused, motivated and stress-free, have time management skills, and be able to search learning resources for successful implementation of Self-Directed Learning (SDL). They felt that events that encourage active participation by students, if organized at regular intervals, could promote Self-Directed Learning (SDL). Some felt that evaluation of SDL would motivate them to take it seriously. According to the students, teacher should act as a facilitator, a mentor, as well as an evaluator.

KEYWORDS: Self-directed learning, physical therapists, medical education, students.

INTRODUCTION

Self-directed learning (SDL) is an essential element of adult education that has been endorsed by varied specialties in medicine. SDL is defined as the process in which the learner takes the initiative, with or without the help of others, establishes their own learning needs, devise learning goals, identify learning resources, choose and execute learning strategies and then evaluate the learning outcomes. [1] In SDL, learner is responsible for his or her own learning with emphasis

on autonomy and self-actualization. [2,3] The extent to which an individual has the attitude, ability, skill and personality characteristics essential for SDL is known as self-directed learning readiness. [4] It is an innate attribute present in all individuals. However, the extent of this learning readiness varies from person to person. [5] There is a switch in the learning process from pedagogy to andragogy as the development of an individual occurs. This transition takes place at different timeline for each learner. [6] Physiotherapy education is undergoing a constantly changing environment with students experiencing diverse learning activities. [7] A physical therapy student should acquire knowledge, skills, attitudes and values essential to provide effective patient care. This necessitates students to possess self-directed learning skills to pursue lifelong learning. Vast literature and medical knowledge along with complex clinical practice makes self-directed learning imperative for health care personnel to continue professional development throughout the career.

SDL is essential to facilitate independent learning, increase accountability and responsibility with primary aim to enhance lifelong learning. [8] A study conducted in first year Saudi Medical students showed that they had high desire for learning and self-control, yet the self-management skills needed further improvement. [9] A mixed method study evaluated the self-directed learning readiness in 452 Indian medical students across the training years. It showed that there was decline in SDL readiness scores across the batches from admission year to the final year of undergraduate medicine (MBBS) program. [10] There is dearth of literature about self-directed learning readiness in physiotherapy students. Physiotherapists are integral members of the multidisciplinary health-care team. They have to incorporate self-learning skills to continue professional development lifelong. Evaluating the SDL readiness among physical therapy students will assist the academicians to formulate the educational objectives for self-directed learning. Hence, the primary purpose of this study was to evaluate the self-directed learning readiness in physiotherapy students and determine whether self-directed learning readiness differed between preclinical and clinical physiotherapy students.

SELF-DIRECTED LEARNING OF STUDENTS' ABILITIES

Medical Education in India is fast progressing, and the primary focus is on acquiring competencies by medical students through self-directed learning (SDL) and is promoted by the active learning approaches. SDL is defined by adult education expert Malcolm Knowles as the process by which the students themselves take the initiative to diagnose their learning needs, formulate their learning goals, identify resources for learning, and evaluate their learning outcomes (6). SDL is primarily a higher order active learning technique that promotes higher order cognitive skills and increases self-efficacy of the students. Onus of learning lies with the students (10). Medical students need to be lifelong learners. SDL plays a crucial role in inculcating the habit of reading and learning in medical graduates. It also develops all of the domains of learning: cognitive, psychomotor, and affective. Despite the promises active learning holds and despite the progress in the field of medical education, the system of medical education in India is skeptical in adapting this change in pedagogy. SDL is an educational concept that has been receiving increasing attention since the

implementation of competency based medical education (CBME) by the Medical Council of India (MCI) (3). Dedicated time has been allotted to SDL in CBME curriculum in each specialty. Despite all reservations, the implementation of SDL has become mandatory. Literature search could not retrieve any study in an Indian context that assesses SDL abilities and perspectives of undergraduate medical students; hence the present study was planned.

SDL instrument (SDLI), a prevalidated questionnaire by Shen et al. was used in the study. The questionnaire consisted of 20 items, of which the first 6 items explored their learning motivation, 7–16 explored their planning and implementation abilities, and the remaining dealt with interpersonal communication skills. The participants were asked to select from a Likert scale 5-point rating: "strongly disagree," "disagree," "neutral," "agree," and "strongly agree." The questionnaire has been validated and used among Chinese nursing students. As per a psychometric systematic review by Cadorin et al. (7), SDLI, owing to its excellent methodology quality adopted in estimating the psychometric properties, is recommended for assessment of SDL abilities among nursing students. However, given that other healthcare students and professionals, e.g., medical students, are expected to possess SDL skills to pursue lifelong learning, it can be used across different cultural, educational, and work settings with careful study designing (7). We had conducted a pilot survey with 10 students to find out their understanding of the items given in the questionnaire and if any additional point was required to be added. Cronbach's alpha for each item was found to be 0.70. Concurrently, it was also validated by experts from different specialties, including members of the medical education unit of the institute. All of the items of the questionnaire were found suitable to be used among undergraduate medical students.

CULTURE AND EDUCATION

Culture is the set of meanings that a group in a time and place come to adopt or develop, and culture can also be regarded as how people think and address various situations/experiences which may be based on individualism, collectivism, or honor. Culture is a dominant controlling factor that impacts one's way of learning and communication in an academic setting. In general, students learn attitudes, norms, practices, and beliefs even before being exposed to formal education. Values such as unity, tolerance, obedience and respectfulness are instilled from a young age via culture and customs and these influence the way students learn. Thus, students share ideas and practice their cultural values even in an academic environment because it is a part of their life.

India is rich in culture and it plays a major role in the process of learning. The instructors also bring into classrooms, beliefs based on their own experiences. Parents play a key role in their children's education and the social environment in which families live influences their involvement. Recent trends in medical education have shown an increase in the adoption of student-centred methods such as problem-based learning (PBL) that emphasize SDL. The acceptability of such methods is not universal and shows variation across different cultures and countries. Cultural factors that impede SDL in medical students across cultural groups differ. Frambach et al. found that uncertainty and tradition were principle restraints in Middle Eastern

students' SDL, whereas a dependence on hierarchical sources rather than oneself was challenging to SDL in Asian students. The pressure of achievement was high in non-Western students. These factors had minimal influence on students in Western countries.

It was noted, however, that once introduced, students grew accustomed to newer methods of education; and acceptability as well as skills in SDL increased across different cultures despite the various challenges in each setting. The impact of culture is seen not only in development of readiness to SDL but also in communication and learning strategies adopted. The curriculum at CMC has various components that promote SDL such as the Integrated Learning Program. It has not been studied whether the students are indeed self-directed and whether the curriculum and culture promote or deter self-direction. Given that SDL is an important skill required for lifelong learning, it is vital for this question to be investigated in order to promote SDL among Indian medical students.

ACTIVITIES IN CURRICULUM AND OTHER FACTORS THAT PROMOTE SDL

Students indicated that when faculty explained a topic very well and promoted interactive sessions in class by asking questions, this motivated SDL because the students sought to read more in order to close the knowledge gap identified. Similarly, if the faculty presented a new clinical case or situation that is different, the student is more self-directed in studying. The Integrated Learning Program (ILP) was repeatedly noted by both students and faculty to promote SDL. As indicated in this statement:

'ILP…. it was an integrated program for the three subjects. We had a lot of experience there and gathered more knowledge and that is when we realized that we should go and read other books' (Batch 2014).

Students in the advanced years of study identified practical case discussions, observation of doctors in clinical settings and clerkship (where students are posted in the clinical wards and are involved in patient care and management from admission to discharge) as key features of the curriculum that promotes SDL because of the different mode of learning:

'SDL affects us more during clerkship - the clinical posting. We are fully involved in how the patient is managed which is different from how we get to know in lectures, reading topics than the usual exam oriented clinics' (Batch 2011).

Faculty indicated that clerkship in clinical years (2nd to 4th year), secondary hospital program, health education message development, eLearning modules, discussions on cases and clinical training were some learning activities in the curriculum that supported SDL. As some instructors stated:

'Chart discussion, we make some charts on cases and problems. They will be given time to read about it and find the answer themselves. Some mode of self-learning happens there. But again, ultimately, we discuss in detail. But at least, it encourages them to read by themselves' (F1).

Faculty also believed that interactive classes via student led seminars, topic specific presentations by students, tutorials and providing students with lecture topics ahead of class promoted SDL. In addition, faculty perceived that pre-tests and post-tests, assessments given at the end of class and Objective Structured Clinical Examinations motivated students to be self-directed. Awards for excellence in studies were also a motivating factor for SDL.

FACTORS THAT DETER SDL

Assessment was a key factor that both facilitated and deterred SDL. Some students perceived that assessment can drive SDL only if it means something to the final exams. However, others perceived assessments as a hindering factor to SDL. The curriculum is loaded with various activities targeted towards the various assessments which occur at frequent intervals of learning. Students are assessment-oriented and as such, all learning is focused on acquiring skills and knowledge that will enable them to excel in assessments. There is limited time set aside for SDL. Students considered that the frequency of tests was an SDL deterrent. In addition, faculty indicated that the current form of teaching is sometimes exam-oriented due to the rigid curriculum. This likewise influences instructors' form of teaching in trying to achieve the required standard.

'Because the curriculum demands, I mean for all of us, we just want to get through the exams, so if you are studying something else, then you might be missing something that is important for your exams' (Batch 2012).

Each week there is an exam…so it is also a problem' (F1).

'Regulations….They say that these are the topics that have to be covered, these are the exams, these are the marks, we are told very clearly this is the case, these are the exercises that we have to do, we have to concentrate to make sure that the students pass.' (F3).

Other factors that deterred SDL at times included not being adequately questioned during clerkship or class, hence reducing motivation for SDL. Too much of extracurricular activities for some students takes up time that could be used for SDL. Faculty similarly noted that as a result of the curriculum demands and extracurricular activities, some students have insufficient time for SDL.

Also, faculty considered the age and state of maturity of students at admission to the college as a deterrent. Students are admitted into the college at a young age and so some students are not mature to adequately motivate themselves to be self-directed in their study:

'They get in at 17, and are out by 22 as doctors. Many of them are straight from high school. And therefore the expectation from us also is sometimes too much. We expect them to be,... they are playful, they are children, they want to have their fun also.' (F2).

'… we must also look at our culture, traditionally, if you see, you know when our students come into the college, they are a little more like kids, they are just adolescents. Our students are still young, because they come in here 18, 17 years of age, so SDL to a large extent should have to be pushed by us, though it is called SDL.' (F4).

Both faculty and students identified that the type of schooling/coaching before admission to medical college, learning background and environment of the student influences their way of studying. The way of learning which students are used to is based on the traditional curriculum of direct learning. Hence, the students expect to be 'spoon–fed', deterring SDL. Instructors also stated that distractions due to modern technology and excess socializing are SDL deterrents.

CONCLUSION

This study provided baseline data regarding the SDL readiness of undergraduate physiotherapy students with 60.76% students having moderate level of SDL readiness. It was observed that clinical students had better self-directed learning readiness as compared to preclinical physiotherapy students. Academicians should incorporate more independent and active learning strategies like problem-based learning to enhance SDL skills in students. Given the decline in SDLR between batches of students from admission year to the final year of studies and the importance of SDL in medicine, the current curriculum may require an increase in learning activities that promote SDL. This study points out the need to address medical students' SDL skills and ways to build these skills. It also shows that curriculum, assessments and culture does impact SDL readiness. Didactic lectures, tutorials, and practical classes are the common methods of teaching in most medical colleges of India. In order to promote SDL, current teaching and learning strategies may need to be re-examined and modified. Faculty development plays an important role in implementing such changes.

It is suggested that, before implementing SDL, the facilitators should be aware of those abilities in which students require special guidance. Concurrently, students should monitor their own learning progress, identify the areas where they are lacking, and make efforts towards self-improvement. The joint efforts by the facilitators and students themselves may be helpful to make students independent and lifelong learners.

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